

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1.–45. (Canceled)

46. (Currently Amended) A communication system comprising:

a server;

a plurality of client terminals; and

a communication network that interconnects the server and the plurality of client terminals,

the ~~[[sever]]~~ server including:

a memory for storing disconnection condition information for each of the client terminals;

decision means for monitoring connection states of the client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal, wherein the connection state of a client terminal is represented by two items of control information received from the client terminal; and

disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal.

47. (Previously Presented) The communication system defined in Claim 46, wherein the two items of control information are a transmission address and a reception address.

48. (Previously Presented) The communication system defined in Claim 47, wherein the disconnection condition for a client terminal is a non-communication time period, and

wherein the disconnection means monitors an arrival of a packet having said transmission address and said reception address, and disconnects the client terminal when a time period that has elapsed after said arrival exceeds the non-communication time period for the client terminal.

49. (Previously Presented) The communication system defined in Claim 47, wherein the disconnection condition for a client terminal is a specific data volume selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, and

wherein the disconnection means monitors a data volume of packets having said transmission address and said reception address, and disconnects the client terminal when the data volume exceeds said specific data volume.

50. (Previously Presented) The communication system defined in Claim 47, wherein the disconnection condition for a client terminal is an allowable traffic value that specifies a level of allowable traffic for the client terminal in a predetermined period of time, and

wherein the disconnection means sums data sizes of packets that have the transmission address and the reception address and are received within said period of time, and disconnects the client terminal when the amount of summed data sizes received in said period of time exceeds said allowable traffic value.

51. (Previously Presented) The communication system defined in Claim 46, wherein the two items of control information are an application server address and a service identifier.

52. (Previously Presented) The communication system defined in Claim 51, wherein the disconnection condition for a client terminal is a timeout time, the timeout time being stored in conjunction with the application server address and the service identifier, and

wherein the disconnection means monitors an arrival of a packet that includes the application server address and the service identifier address, and disconnects the client terminal when a time period that has elapsed since said arrival exceeds the timeout time.

53. (Previously Presented) The communication system defined in Claim 46, wherein, when the disconnection conditions of two or more of the client terminals having the same disconnection condition are met, the disconnection means disconnects the client terminal logged in at an earliest time.

54. (Currently Amended) A communication system comprising:
a server;
a plurality of client terminals;
an application server that stores an application supplied to client terminals;
a first communication network that interconnects said server and the plurality of client terminals; and
a second communication network that interconnects the server and the application server,
each client terminal including means for transmitting to the server a log-in request that comprises an identifier, and
the ~~[[sever]]~~ server including:
a memory for storing disconnection condition information for each of the client terminals in conjunction with user identifiers of the respective client terminals;
means for logging in a client terminal in response to a log-in request from the client terminal;
retrieval means for retrieving stored disconnection condition information for a client terminal based on a user identifier transmitted from the client terminal;
decision means for monitoring connection states of client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal; and

disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal,

wherein the disconnection condition for a client terminal is a non-communication time period during which no packet is communicated between the client terminal and the application server, and

wherein the disconnection means monitors an arrival time of a packet that includes a transmission address and reception address corresponding to the client terminal and the application server, and disconnects the client terminal when a time period that has elapsed after said arrival exceeds said non-communication time period.

55. (Previously Presented) A communication system comprising:

a server;

a plurality of client terminals;

an application server that stores an application supplied to client terminals;

a first communication network that interconnects the server and the plurality of client terminals; and

a second communication network that interconnects the server and the application server,

each client terminal including means for transmitting to the server a log-in request that comprises an identifier,

the server including:

a memory for storing disconnection condition information for each of the client terminals in conjunction with user identifiers of the respective client terminals;

means for logging in a client terminal in response to a log-in request from the client terminal;

retrieval means for retrieving stored disconnection condition information for a client terminal based on a user identifier transmitted from the client terminal;

decision means for monitoring connection states of client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal; and

disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal,

wherein the disconnection condition for a client terminal is a timeout time, the timeout time being stored in conjunction with an address of the application server and a service identifier, and

wherein the disconnection means monitors an arrival of a packet that includes said address of the application server and the service identifier, and disconnects the client terminal when a time period that has elapsed since said arrival exceeds the timeout time.

56. (Currently Amended) A communication system comprising:
- a server;
 - a plurality of client terminals; and
 - a communication network that interconnects the server and the plurality of client terminals,
- each client terminal including means for transmitting to the server a log-in request that comprises an identifier,
- the ~~[[sever]]~~ server including:
- a memory for storing disconnection condition information for each of the client terminals in conjunction with user identifiers of the respective client terminals;
 - means for logging in a client terminal in response to a log-in request from the client terminal;
 - retrieval means for retrieving stored disconnection condition information for a client terminal based on a user identifier transmitted from the client terminal;
 - decision means for monitoring connection states of client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal; and
 - disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal,

wherein the disconnection condition for a client terminal is a specific data volume selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, wherein said packets include a specified transmission address and reception address, and

wherein the disconnection means disconnects the client terminal when the data volume of packets that have the transmission address and the reception address exceeds said specific data volume.

57. (Previously Presented) A method in a server of a communication system, comprising:

storing disconnection condition information for each of a plurality of client terminals;
monitoring connection states of the client terminals;

deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal, wherein the connection state of a client terminal is represented by two items of control information received from the client terminal;
and

disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal.

58. (Previously Presented) The method defined in Claim 57, wherein the two items of control information are a transmission address and a reception address.

59. (Previously Presented) The method defined in Claim 58, wherein the disconnection condition for a client terminal is a non-communication time period,

wherein monitoring connection states comprises monitoring an arrival of a packet having said transmission address and said reception address, and

wherein the client terminal is disconnected when a time period that has elapsed after said arrival exceeds the non-communication time period for the client terminal.

60. (Previously Presented) The method defined in Claim 58, wherein the disconnection condition for a client terminal is a specific data volume selected from the group

of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count,

wherein monitoring connection states comprises monitoring a data volume of packets having said transmission address and said reception address, and

wherein the client terminal is disconnected when the data volume exceeds said specific data volume.

61. (Previously Presented) The method defined in Claim 58, wherein the disconnection condition for a client terminal is an allowable traffic value that specifies a level of allowable traffic for the client terminal in a predetermined period of time,

wherein monitoring connection states comprises summing data sizes of packets that have the transmission address and the reception address and are received within said period of time, and

wherein the client terminal is disconnected when the amount of summed data sizes received in said period of time exceeds said allowable traffic value.

62. (Previously Presented) The method defined in Claim 57, wherein the two items of control information are an application server address and a service identifier.

63. (Previously Presented) The method defined in Claim 62, wherein the disconnection condition for a client terminal is a timeout time, the timeout time being stored in conjunction with the application server address and the service identifier,

wherein monitoring connection states comprises monitoring an arrival of a packet that includes the application server address and the service identifier address, and

wherein the client terminal is disconnected when a time period that has elapsed since said arrival exceeds the timeout time.

64. (Previously Presented) The method defined in Claim 57, wherein, when the disconnection conditions of two or more of the client terminals having the same disconnection condition are met, the disconnection means disconnects the client terminal logged in at an earliest time.

65. (Previously Presented) A method in a server of a communication system, comprising:

- storing disconnection condition information for each of a plurality of client terminals in conjunction with user identifiers of the respective client terminals;

- logging in a client terminal in response to a log-in request from the client terminal;

- retrieving stored disconnection condition information for the client terminal based on a user identifier transmitted from the client terminal;

- monitoring a connection state of the client terminal;

- deciding whether the connection state of the client terminal corresponds to a disconnection condition for the client terminal; and

- disconnecting the client terminal when it is decided that the connection state of the client terminal corresponds to the disconnection condition for the client terminal,

- wherein the disconnection condition for the client terminal is a non-communication time period during which no packet is communicated between the client terminal and an application server,

- wherein monitoring a connection state comprises monitoring an arrival time of a packet that includes a transmission address and reception address corresponding to the client terminal and the application server, and

- wherein the client terminal is disconnected when a time period that has elapsed after said arrival exceeds said non-communication time period.

66. (Previously Presented) A method in a server of a communication system, comprising:

- storing disconnection condition information for each of a plurality of client terminals in conjunction with user identifiers of the respective client terminals;

- logging in a client terminal in response to a log-in request from the client terminal;

- retrieving stored disconnection condition information for the client terminal based on a user identifier transmitted from the client terminal;

- monitoring a connection state of the client terminal;

- deciding whether the connection state of the client terminal corresponds to a disconnection condition for the client terminal; and

disconnecting the client terminal when it is decided that the connection state of the client terminal corresponds to the disconnection condition for the client terminal,

wherein the disconnection condition for the client terminal is a timeout time, the timeout time being stored in conjunction with an address of an application server and a service identifier,

wherein monitoring a connection state comprises monitoring an arrival of a packet that includes said address of the application server and the service identifier, and

wherein the client terminal is disconnected when a time period that has elapsed since said arrival exceeds the timeout time.

67. (Previously Presented) A method in a server of a communication system, comprising:

storing disconnection condition information for each of a plurality of client terminals in conjunction with user identifiers of the respective client terminals;

logging in a client terminal in response to a log-in request from the client terminal;

retrieving stored disconnection condition information for the client terminal based on a user identifier transmitted from the client terminal;

monitoring a connection state of the client terminal;

deciding whether the connection state of the client terminal corresponds to a disconnection condition for the client terminal; and

disconnecting the client terminal when it is decided that the connection state of the client terminal corresponds to the disconnection condition for the client terminal,

wherein the disconnection condition for a client terminal is a specific data volume selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, wherein said packets include a specified transmission address and reception address,

wherein the client terminal is disconnected when the data volume of packets that have the transmission address and the reception address exceeds said specific data volume.

68. (Previously Presented) A server in a communication system, comprising:

a memory for storing disconnection condition information for each of a plurality of client terminals;

decision means for monitoring connection states of the client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal, wherein the connection state of a client terminal is represented by two items of control information received from the client terminal; and

disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal.

69. (Previously Presented) The server defined in Claim 68, wherein the two items of control information are a transmission address and a reception address.

70. (Previously Presented) The server defined in Claim 69, wherein the disconnection condition for a client terminal is a non-communication time period, and

wherein the disconnection means monitors an arrival of a packet having said transmission address and said reception address, and disconnects the client terminal when a time period that has elapsed after said arrival exceeds the non-communication time period for the client terminal.

71. (Previously Presented) The server defined in Claim 69, wherein the disconnection condition for a client terminal is a specific data volume selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, and

wherein the disconnection means monitors a data volume of packets having said transmission address and said reception address, and disconnects the client terminal when the data volume exceeds said specific data volume.

72. (Previously Presented) The server defined in Claim 69, wherein the disconnection condition for a client terminal is an allowable traffic value that specifies a level of allowable traffic for the client terminal in a predetermined period of time, and

wherein the disconnection means sums data sizes of packets that have the transmission address and the reception address and are received within said period of time, and disconnects the client terminal when the amount of summed data sizes received in said period of time exceeds said allowable traffic value.

73. (Previously Presented) The server defined in Claim 69, wherein the two items of control information are an application server address and a service identifier.

74. (Previously Presented) The server defined in Claim 73, wherein the disconnection condition for a client terminal is a timeout time, the timeout time being stored in conjunction with the application server address and the service identifier, and

wherein the disconnection means monitors an arrival of a packet that includes the application server address and the service identifier address, and disconnects the client terminal when a time period that has elapsed since said arrival exceeds the timeout time.

75. (Previously Presented) The server defined in Claim 68, wherein, when the disconnection conditions of two or more of the client terminals having the same disconnection condition are met, the disconnection means disconnects the client terminal logged in at an earliest time.

76. (Previously Presented) A server in a communication system, comprising:
a memory for storing disconnection condition information for each of a plurality of client terminals in conjunction with user identifiers of the respective client terminals;
means for logging in a client terminal in response to a log-in request from a client terminal;
retrieval means for retrieving stored disconnection condition information for a client terminal based on a user identifier transmitted from the client terminal;
decision means for monitoring connection states of client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal; and

disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal,

wherein the disconnection condition for a client terminal is a non-communication time period during which no packet is communicated between the client terminal and the application server, and

wherein the disconnection means monitors an arrival time of a packet that includes a transmission address and reception address corresponding to the client terminal and the application server, and disconnects the client terminal when a time period that has elapsed after said arrival exceeds said non-communication time period.

77. (Previously Presented) A server in a communication system, comprising:
a memory for storing disconnection condition information for each of a plurality of client terminals in conjunction with user identifiers of the respective client terminals;

means for logging in a client terminal in response to a log-in request from the client terminal;

retrieval means for retrieving stored disconnection condition information for a client terminal based on a user identifier transmitted from the client terminal;

decision means for monitoring connection states of client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal; and

disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal,

wherein the disconnection condition for a client terminal is a timeout time, the timeout time being stored in conjunction with an address of the application server and a service identifier, and

wherein the disconnection means monitors an arrival of a packet that includes said address of the application server and the service identifier, and disconnects the client terminal when a time period that has elapsed since said arrival exceeds the timeout time.

78. (Previously Presented) A server in a communication system, comprising:

- a memory for storing disconnection condition information for each of a plurality of client terminals in conjunction with user identifiers of the respective client terminals;
- means for logging in a client terminal in response to a log-in request from the client terminal;
- retrieval means for retrieving stored disconnection condition information for a client terminal based on a user identifier transmitted from the client terminal;
- decision means for monitoring connection states of client terminals and deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal; and
- disconnection means for disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal,

wherein the disconnection condition for a client terminal is a specific data volume selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, wherein said packets include a specified transmission address and reception address, and

wherein the disconnection means disconnects the client terminal when the data volume of packets that have the transmission address and the reception address exceeds said specific data volume.

79. (Previously Presented) A recording medium in which a program is stored, said program causing a server of a communication system to execute a process, said process comprising:

- storing disconnection condition information for each of a plurality of client terminals;
- monitoring connection states of the client terminals;
- deciding whether the connection state of a client terminal corresponds to a disconnection condition for that client terminal, wherein the connection state of a client terminal is represented by two items of control information received from the client terminal;

and

disconnecting a client terminal when it is decided that the connection state of that client terminal corresponds to the disconnection condition for that client terminal.

80. (Previously Presented) The recording medium defined in Claim 79, wherein the two items of control information are a transmission address and a reception address.

81. (Previously Presented) The recording medium defined in Claim 80, wherein the disconnection condition for a client terminal is a non-communication time period,
wherein monitoring connection states comprises monitoring an arrival of a packet having said transmission address and said reception address, and
wherein the client terminal is disconnected when a time period that has elapsed after said arrival exceeds the non-communication time period for the client terminal.

82. (Previously Presented) The recording medium defined in Claim 80, wherein the disconnection condition for a client terminal is a specific data volume selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count,
wherein monitoring connection states comprises monitoring a data volume of packets having said transmission address and said reception address, and
wherein the client terminal is disconnected when the data volume exceeds said specific data volume.

83. (Previously Presented) The recording medium defined in Claim 80, wherein the disconnection condition for a client terminal is an allowable traffic value that specifies a level of allowable traffic for the client terminal in a predetermined period of time,
wherein monitoring connection states comprises summing data sizes of packets that have the transmission address and the reception address and are received within said period of time, and
wherein the client terminal is disconnected when the amount of summed data sizes received in said period of time exceeds said allowable traffic value.

84. (Previously Presented) The recording medium defined in Claim 79, wherein the two items of control information are an application server address and a service identifier.

85. (Previously Presented) The recording medium defined in Claim 84, wherein the disconnection condition for a client terminal is a timeout time, the timeout time being stored in conjunction with the application server address and the service identifier,

wherein monitoring connection states comprises monitoring an arrival of a packet that includes the application server address and the service identifier address, and

wherein the client terminal is disconnected when a time period that has elapsed since said arrival exceeds the timeout time.

86. (Previously Presented) The recording medium defined in Claim 79, wherein, when the disconnection conditions of two or more of the client terminals having the same disconnection condition are met, the disconnection means disconnects the client terminal logged in at an earliest time.

87. (Previously Presented) A recording medium in which a program is stored, said program causing a server of a communication system to execute a process, said process comprising:

storing disconnection condition information for each of a plurality of client terminals in conjunction with user identifiers of the respective client terminals;

logging in a client terminal in response to a log-in request from the client terminal;

retrieving stored disconnection condition information for the client terminal based on a user identifier transmitted from the client terminal;

monitoring a connection state of the client terminal;

deciding whether the connection state of the client terminal corresponds to a disconnection condition for the client terminal; and

disconnecting the client terminal when it is decided that the connection state of the client terminal corresponds to the disconnection condition for the client terminal,

wherein the disconnection condition for the client terminal is a non-communication time period during which no packet is communicated between the client terminal and an application server,

wherein monitoring a connection state comprises monitoring an arrival time of a packet that includes a transmission address and reception address corresponding to the client terminal and the application server, and

wherein the client terminal is disconnected when a time period that has elapsed after said arrival exceeds said non-communication time period.

88. (Previously Presented) A recording medium in which a program is stored, said program causing a server of a communication system to execute a process, said process comprising:

storing disconnection condition information for each of a plurality of client terminals in conjunction with user identifiers of the respective client terminals;

logging in a client terminal in response to a log-in request from the client terminal;

retrieving stored disconnection condition information for the client terminal based on a user identifier transmitted from the client terminal;

monitoring a connection state of the client terminal;

deciding whether the connection state of the client terminal corresponds to a disconnection condition for the client terminal; and

disconnecting the client terminal when it is decided that the connection state of the client terminal corresponds to the disconnection condition for the client terminal,

wherein the disconnection condition for the client terminal is a timeout time, the timeout time being stored in conjunction with an address of an application server and a service identifier,

wherein monitoring a connection state comprises monitoring an arrival of a packet that includes said address of the application server and the service identifier, and

wherein the client terminal is disconnected when a time period that has elapsed since said arrival exceeds the timeout time.

89. (Previously Presented) A recording medium in which a program is stored, said program causing a server of a communication system to execute a process, said process comprising:

storing disconnection condition information for each of a plurality of client terminals in conjunction with user identifiers of the respective client terminals;

logging in a client terminal in response to a log-in request from the client terminal;

retrieving stored disconnection condition information for the client terminal based on a user identifier transmitted from the client terminal;

monitoring a connection state of the client terminal;

deciding whether the connection state of the client terminal corresponds to a disconnection condition for the client terminal; and

disconnecting the client terminal when it is decided that the connection state of the client terminal corresponds to the disconnection condition for the client terminal,

wherein the disconnection condition for a client terminal is a specific data volume selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, wherein said packets include a specified transmission address and reception address,

wherein the client terminal is disconnected when the data volume of packets that have the transmission address and the reception address exceeds said specific data volume.